

Plant Production and Protection - Biology

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The official link for this solicitation is: http://www.nifa.usda.gov/funding/rfas/sbir_rfa.html

Agency:

Department of Agriculture

Release Date:

July 13, 2011

Branch:

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Program / Phase / Year:

SBIR / Phase I / 2012

Application Due Date:

September 01, 2011

Solicitation:

[1](#)

Close Date:

September 01, 2011

Topic Number:

8.2

Description:

The objective of this topic area is to examine means of enhancing crop production by applying biological approaches to reduce the impact of harmful agents, develop new methods for plant improvement, and apply traditional plant breeding methods and new technologies to develop new food and non-food crop plants, as well as new genotypes of existing crop plants with characteristics that allow their use in new commercial applications. This topic area supports the following NIFA Societal Challenge Areas: Global Food Security and Hunger; Climate Change; Sustainable bioenergy; and Food Safety. Examples of appropriate subtopics for research applications from small businesses include, but are not limited to the following:

- **Plant improvement**–Improved efficiency of crop production by adoption and/or development of innovative methods and applications for traditional plant breeding and biotechnology, including but not limited to, molecular biology, and mutagenesis; genomics; tissue culture; and embryogenesis to produce crops with new or improved quality, yield and agronomic, horticultural, value-added, or economic traits.
- **New crops**– Development of new crop plants as sources of food, non-food industrial, or ornamental products.
- **Plant protection**–Reduced the impact of plant pathogens, insect pests, and abiotic stress on

crop plants; and increasing plant resistance to plant pathogens, insect pests, and abiotic stress.

FY 2012 Research Priorities: SBIR is **strongly encouraging** the submission of applications focusing on the following problem areas. Additional consideration will be given to applications addressing the development of products, process, and services for U.S. production of specialty crops (fruits, nuts, vegetables, nursery, and greenhouse crops) and agronomic bioenergy feedstock crops (Note: proposals addressing the major commodity crops will also be accepted and reviewed):

1. Projects that address the health and success of domesticated and natural pollinators of economically important crops.
2. Improved plant disease diagnostics (accurate, rapid, and cost-effective identification of causal agents in specialty crop plants at the earliest possible time relative to manifestation of disease).
3. Biological approaches to protect organically-grown crops from insect and nematode pests and diseases.
4. Biological approaches to improving commercial floricultural production (technology to improve the competitiveness of U.S. production of flowering potted plants, bedding plants, seasonal crops, annuals, perennials, and cut flowers).
5. Biological approaches to improve dedicated bioenergy feedstock crops (excluding woody biomass crops and algae, see Other Key Information below).
6. Systems, methods, or technologies that facilitate the movement (deregulation) of transgenic specialty crops through the existing regulatory system to reach consumer markets. Applications should not address issues surrounding consumer acceptance of transgenic crops and their products.

Other Key Information

- **ALL ATTACHMENTS MUST BE SUBMITTED IN THE PORTABLE DOCUMENT FORMAT (PDF).**
- All Phase I applications should give the reviewing community a brief vision of where the PD expects the project to be at the end of Phase II (entering Phase III commercialization).
- Phase I applications involving the development of transgenic crops would benefit by the inclusion of a brief description of the proposed path to commercialization, including an understanding of what will be needed to clear regulatory consideration. Phase II applications involving the development of transgenic crops should have an expanded section on how regulatory considerations will be met and market entry attained.
- Applications that deal with non-biological engineering technologies should be sent to topic area 8.13 Plant Production and Protection – Engineering.
- Applications that deal with the genetic improvement and production of woody biomass feedstock crops should be submitted to the 8.1 Forest and Related Resources topic area.
- Applications that deal with the genetic improvement and production of algae should be submitted to the 8.7 Aquaculture topic area.
- Applications exceeding the budget limitation or exceeding the page limit or not meeting the formatting requirements will be excluded from NIFA review.